

RemarksStatus of the Claims

Claims 23-29, 31-41, 43-45, 56, and 57 are pending in the application. All claims stand rejected. By this paper, claims 31 and 43-45 have been amended merely to overcome informalities. Reconsideration of all pending claims is respectfully requested.

Claim Objections

Claims 31 and 43-45 are objected to due to improper dependencies. The applicants have amended claims 31 and 43-45 to comply with the Examiner's requirement.

35 U.S.C. § 102

Claims 23-29, 31, 32, 36-40 and 56 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,154,206 to Ludtke ("Ludtke"). Claim 23 recites "**simulcasting** said channels encrypted in **both** CA encryption and said different form of encryption to subscribers having either a new multimedia receiver or a legacy multimedia receiver." Simulcasting is defined in the specification as "simultaneously broadcasting each digital stream." Page 31, line 19. This is consistent with the commonly understood definition. Merriam Webster's Online Dictionary defines simulcast as "to broadcast simultaneously (as by radio and television)." <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=simulcast>.

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For the above-recited limitation, the Office Action cites to column 7, lines 47-64. This passage is reproduced in its entirety as follows:

In step 420, receiver unit 210 determines whether CA control unit 220 as identified in step 410 supports the particular broadcasting system employed by receiver unit 210. In one embodiment, receiver unit 210 examines the data structures used in CA subunit 222 of CA control unit 220 to determine if they match with the data structures used in main tuner subunit 212 and OOB tuner subunit 214 of receiver unit 210. If a match is established, receiver unit 210 concludes that CA control unit 220 and receiver unit 210 are compatible. As an example, different CA services as provided by different content providers (e.g., HBO, ShowTime) could employ different encryption formats or data structures, so that CA control unit 220 may not be compatible with a particular CA service (e.g., a PPV movie from HBO) received by receiver unit 210. In such cases, receiver unit 210 would proceed to identify another CA control unit on the network (e.g., CA control unit 220a) which can handle the particular CA service in question.

Thus, Ludtke teaches the matching of receiver units and CA control units based on compatibility and that different CA services may employ different encryptions. A CA control unit may not, therefore, be compatible with a particular CA service.

There is absolutely no discussion whatsoever of simultaneously broadcasting channels encrypted in both CA encryption and a different form of encryption. Ludtke merely teaches that different forms of CA encryption exist, which necessitates the identification of the proper CA control unit which can handle the encryption. As evidenced above, a "simulcast" requires the simultaneous broadcasting of the encrypted channels. In Ludtke, as encrypted data is received, the appropriate CA control unit is applied. This does not teach or fairly suggest simultaneous broadcasting. The applicant respectfully inquires as to where in Ludtke simultaneous broadcasting of channels encrypted in two different formats is taught. The Office

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Action is silent on the matter and only refers to the above-quoted passage without explanation.

Claim 23 further requires encrypting channels using both conditional access ("CA") encryption and a different form of encryption. Claim 23 requires that these encrypted channels be simulcasted. The specification recites that channels may be transmitted using standard encryption, such as standard CA encryption and MPEG-2 compression, and non-standard encryption, such as open encryption, MPEG-4 compression, Digital Video Broadcast "DVB" encryption, Secure Sockets Layer "SSL" encryption, and DES encryption. Page 31, line 6 to page 32, line 4. Claim 23 requires that channels are encrypted in two different formats and then simulcasted.

For this limitation, the Office Action cites to column 7, lines 47-64 of Ludtke which is quoted above. Ludtke states that "different CA services as provided by different content providers (e.g., HBO, ShowTime) could employ different encryption formats or data structures, so that CA control unit 220 may not be compatible with a particular CA service (e.g., a PPV movie from HBO) received by receiver unit 210." Column 7, lines 55-60. Ludtke refers only to CA services that employ different forms of encryption. The various encryptions, however, remain as forms of standard CA encryption. There is no teaching in Ludtke of using a form of encryption that is different from CA encryption. A non-CA form of encryption is required to satisfy the limitation of "using both conditional access ("CA") encryption and a different form of encryption."

As discussed in the previous response, the claimed features allow cable operators to use more advanced encryption and/or compression techniques for

newer multimedia receivers. At the same time, older multimedia receivers still receive all of the same channels encrypted or compressed using standard techniques. Ludtke only teaches standard form of CA encryption and does not disclose the use of advanced or non-CA forms of encryption.

Anticipation under section 102 is proper only if the reference shows exactly what is claimed. Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 USPQ 773, 777 (Fed. Cir. 1985); MPEP § 2131.01. Ludtke does not teach the limitations of claim 23 and cannot anticipate claim 23. Reconsideration is respectfully requested.

Claims 24-28 depend from and include all limitations of claim 23 and likewise represent patentable subject matter.

Claim 26 merits further discussion as it requires both CA encryption and a different form of encryption. For this limitation, the Office Action cites to column 11, lines 11-36 which states:

Importantly, by making available a single OOB data stream to be used by the several CA subunits 222, 222a, 222b and 222c, bandwidth usage of the 1394 network is optimized because the OOB data is not duplicated for each of the content data streams. Indeed, the single OOB data stream flowing via isochronous channel 20 can be furnished to the CA subunit of any CA control unit on the 1394 network and can be used to descramble any CA services carried by the full DBS. As would be clear to one skilled in the art, within the scope of the present invention, the instant embodiment can be expanded to include even more CA control units, so that an even greater number of CA services can be simultaneously accessed, subject only to the physical limitation of the maximum allowable number of nodes and channels on a 1394 network. Currently, up to 64 nodes (devices) and 64 isochronous channels are allowed on a 1394 network. Nevertheless, one of the 64 isochronous channels is dedicated to "broadcast", such that all data transmitted in the broadcast channel is visible to all nodes. As a result, 63 "private" (non-broadcast) channels are available for general purpose use, meaning that 63 different CA services can potentially be accessed concurrently. As such, the present invention advantageously eliminates the restrictive limitation inherent in the prior art that the user can only access a few (typically with a maximum of 4)

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CA services at any given time, and provides the user maximum flexibility in fashioning the user's viewing and recording schedules.

The cited passage refers to the descrambling of "any CA services carried by the full DBS," the use of CA subunits, and the use of CA control units. There is absolutely no discussion of an encryption other than a CA form of encryption. Should this rejection be maintained, the examiner is respectfully requested to identify where non-CA forms of encryption are disclosed.

Claim 26 further requires "simulcasting said portion encrypted using CA encryption and said portion encrypted using said different form of encryption." For this limitation, the Office Action again refers to column 11, lines 11-36 of Ludtke. Ludtke teaches the expansion of CA control units so that an even greater number of CA services can be simultaneously accessed. The applicant acknowledges that the ability to access multiple channels is known. However, a portion of the channels are not encrypted "using both CA encryption and a different form of encryption." There is no discussion in Ludtke of a single channel being both encrypted in CA encryption and a different form of encryption. Indeed, there is no discussion in Ludtke of a single channel being encrypted in two different formats and then simulcasting the two formats.

Claim 27 recites that the "different form of encryption is digital video broadcast 'DVB encryption.'" For this teaching the Office Action cites to column 9, line 49 to column 10, line 51 of Ludtke. Ludtke offers no teaching or suggestion of DVB encryption. DVB encryption is a form of encryption that is known in the art, but Ludtke makes no reference to this encryption format. Rather, Ludtke discloses

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scrambling a portion of DBS, but does not refer to the format other than CA encryption which is referenced throughout Ludtke.

Claims 29 and 56 include limitations similar to those discussed above in reference to claim 26 and are patentable over Ludtke. Claim 29 recites encrypting a first group of multimedia channels using conditional access "CA" and encrypting said first group of multimedia channels using a different type of encryption. Thus, the same first group of multimedia channels is encrypted in a CA format and a non-CA format. There is no teaching in Ludtke of a group of channels being both encrypted in a CA format and a non-CA format. Ludtke does not even teach that the same group of channels is encrypted in two different ways. Rather, Ludtke discloses encryption of various channels in various CA formats.

Claim 56 similarly requires encrypting multimedia channels using CA and simultaneously encrypting the same multimedia channels using a different type of encryption. Ludtke has no discussion of encrypting the same channels in two different formats. Furthermore, Ludtke has no discussion of simultaneously encrypting the same channels in two different formats. Reconsideration is respectfully requested.

Claims 31-40 depend from claim 29 and likewise represent patentable subject matter. Claim 31 includes limitations similar to claim 27 and is further distinguished from Ludtke for the same reasons.

Claims 41, 43, 44 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,504,816 to Hamilton et al. ("Hamilton"). Claim 41 requires "a quadrature amplitude modulation module to modulate said first plurality of multimedia

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streams encrypted in both CA encryption and said different type of encryption for simulcasting to a plurality of multimedia subscribers." The Office Action does not reference the "simulcasting" but instead refers to earlier claim language of "transmission." The significance of simulcasting is discussed above.

For this limitation, the Office Action cites to column 4, lines 49-64 of Hamilton. Hamilton discloses a headend reencryption transcoder for receiving, decrypting, reencrypting, and retransmitting digital program and control signals. However, there is absolutely no disclosure of simultaneously broadcasting multimedia streams that are encrypted in two different formats. Claim 41 was amended in the amendment of June 3, 2005 to include the limitations of claim 23. Such limitations were deemed to be patentably distinct from Hamilton in previous Office Action of March 8, 2005. If this rejection is maintained, the applicant respectfully requests clarification on where Hamilton discloses simulcasting of multimedia streams in two different encryption formats.

Claims 43 and 44 depend from claim 41 and likewise represent patentable subject matter. With respect to claim 43, the applicant notes that Hamilton has no teaching of the DVB encryption format.

Claims 33-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludtke and further in view of U.S. Patent No. 6,542,610 to Traw et al. ("Traw"). Because claim 29 is patentable over Ludtke, claims 33-35 are likewise patentable over Ludtke. The addition of Traw does not cure the deficiencies of Ludtke because Traw does not teach simulcasting.

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Claim 45 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hamilton and further in view of Traw. Because claim 41 is patentable over Hamilton, claim 45 is likewise patentable over Hamilton. The addition of Traw does not cure the deficiencies of Hamilton because Traw does not teach simulcasting.


Claim 57 was entered in the amendment of June 3, 2005, but is not discussed in the Office Action. Claim 57 includes limitations similar to that of claim 23 but is written in mean-plus-function format. Consideration of claim 57 is requested.

The applicant notes that the Office Action includes an examination of claims 2-22, 42, and 47-49. These claims have been canceled in the amendment of June 3, 2005.

In view of the foregoing, all pending claims represent patentable subject matter. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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